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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,353	11/17/2003	Sung-mun Cho	45686	9153
1609 7590 11/29/2007 ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			EXAMINER TSO, EDWARD H	
			ART UNIT 2838	PAPER NUMBER
			MAIL DATE 11/29/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/713,353

Applicant(s)

CHO, SUNG-MUN

Examiner

Edward Tso

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 36 and 37 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-19 and 35 is/are allowed.
- 6) ☒ Claim(s) 20-22 is/are rejected.
- 7) ☒ Claim(s) 23-34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 36 and 37 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 9/12/07.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison IV et al. (US 6,118,250). Hutchison discloses a method for recharging a rechargeable battery in a digital device comprising: determining whether a voltage of a rechargeable battery is greater than a voltage, and if so, determining that the battery is partially discharged and performing a recharge operation according to the state of the digital device being used (Column 3, lines 6-12). However it is silent on the voltage being 5 volts. It would have been obvious to one having ordinary skill in the art at the time this invention was made to set the voltage at 5 volts, since it has been held that

discovering an optimum value involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison IV et al. (US 6,118,250) in view of Matsuda et al. (US 5,739,667).

Regarding claim 21, Hutchinson discloses all the limitation of the independent claim, but does not expressly disclose the claimed limitations. Matsuda discloses the step of performing a recharge operation according to a state of the digital device being used comprises; determining a consuming current (Figure 1, element 11); outputting a control signal according to the consuming current (element 16); and supplying a recharging current according to the control signal to the rechargeable battery for recharging (Column 16, lines 66-67, and column 17, lines 1- 7) (Being that there is only one power source, when Tr1 is switched on, it takes power that would have been supplied to the load).

As to Claim 22, which is dependent upon claim 21, Matsuda discloses wherein the control signal includes a pulse width modulation signal (Column 16, lines 66-67, and column 17, lines 1-7).

***Allowable Subject Matter***

Claims 1-19 and 35 are allowed. The prior art made of record fails to disclose, *inter alia*, and at least a control unit for generating a control signal based on the consuming current and a battery recharging current.

Claims 23-34 are again objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed 9/12/07 have been fully considered but they are not persuasive. Regarding Applicant's assertion that, in claim 20, that "determining that the battery is partially discharged and performing a recharge operation according to a state of the digital device being used (Emphasis added)" is not taught in the references. The statement is meaningless since it could just mean that the device is turned 'on.'

Regarding Applicant's response to the election/restriction requirement that there is no burden on the Examiner to examine all claims, the Examiner disagrees. Claims 36 and 37 deal with the operational steps of switch-displaying the charge on an LED display based on the state of the detected current, which are completely different in scope to the elected invention. Moreover, the elected invention has been constructively

elected by original presentation for prosecution on the merits. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Conclusion***

This application contains claims 36 and 37 drawn to an invention nonelected with traverse in the reply filed on 9/12/07. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to the Examiner at the below-listed number on every Tuesday, Thursday and Saturday.

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Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist at (571) 272-2800, Monday-Friday, 8:30am to 5:00pm, EST.

By: /Edward H Tso/  
EDWARD H TSO  
Primary Examiner  
(571) 272-2087